

SCOTTSDALE TRANSPORTATION COMMISSION REPORT

To: Transportation Commission
From: Ratna Korepella, Principal Transit Planner
Meeting Date: March 19, 2015
Subject: Potential Citywide Bus and Trolley Improvements



ITEM IN BRIEF

Action: No action requested; information and discussion only.

Purpose:

This is the fourth in a series of presentations regarding City's transit system. The first presentation focused on route-ridership data and survey information, second covered existing gaps in transit service and explained how it supports Scottsdale's economy and businesses, and third provided detailed information on proposed Camelback Trolley using 2010 On-board Survey Data and Automatic Passenger Data from Route 50 (Camelback Road). This presentation will give an overview of the four Scottsdale areas that are unserved by transit. The overview includes characteristics of each of these areas, proposed route, route prioritization, and estimated annual operations costs.

Overview

The objective of providing transit service is to give citizens transportation choices to meet their needs in living a productive life. Public transportation is a viable transportation alternative for those at all income levels and lifestyles. Improving transit service will improve access to employment, schools and activity centers throughout the city. Most importantly, transit supports local businesses by transporting employees to local jobs and provides a good mode of access to educational institutions for students as well as employees.

For transit service to be competitive with other modes of transportation, it must be frequent, fast, and convenient. Routes must cover employment and activity centers throughout the City, and provide transfers to other routes throughout the Valley. In addition, the vehicles and bus facilities must be clean, reliable, and comfortable.

There are many areas that are unserved by transit, even though they may be adjacent to a Valley Metro bus route. In addition to the Camelback area that was presented at the February Transportation Commission meeting, four other areas have been identified and are shown in **Figure 1**. Each of the four areas include a large number of employers, schools, and activity centers. Most importantly, each connects to at least one existing Valley Metro Bus route or Scottsdale Trolley route. Together with the Camelback area, these four contain approximately half of all the City's jobs. Scottsdale needs to support its business community by providing an effective and efficient public transit system that connects employees and consumers to the businesses. The combination of wages and housing costs in Scottsdale make it difficult for a low-wage earning employee to live and work in this city.

Cactus Trolley

Figure 2 shows the proposed Cactus Trolley route. This route is approximately 14 miles long in each direction and provides connectivity to several employment centers, activity centers,

residential neighborhoods, schools and parks. **Table A** below shows the land use within one-quarter to one-half mile of the route. The Via Linda Senior Center Scottsdale is without transit connections. Also, the proposed trolley route connects to three transit routes as indicated in Table A below.

The Cactus Trolley route also provides connectivity to City of Scottsdale offices at the North Corporation Yard, and Police and Fire emergency services. A Maricopa Association of Governments (MAG) Employer 2013 database indicates that there are approximately 12,676 employees within one-quarter mile of the proposed route. Scottsdale Health care (2,100 Employees) and CVS Pharmacy (1,100 Employees) are the two largest employers in this service area.

Table A: Cactus Trolley

Schools	Parks	Major Employers
Laguna Elementary School	Scottsdale Ranch Park	Scottsdale Health Care (2100)
SUSD Early Childhood Campus	Cholla Park	CVS Pharmacy (1100)
Sunrise Preschool	Aztec Park	PayPal (430)
Tutor Time Charter School	Horizon Park	
Cheyenne Traditional Elementary School	Thunderbird Park	Connectivity to Transit Routes
The Scottsdale School		Route 80 - Shea Blvd
Redfield elementary School	Libraries	Route 81 - Hayden Road
Scottsdale Childcare Learning Center	Mustang Library	Route 514 - Express
Mission Montessori School	Major Activity Centers	
Camelback Desert School	Via Linda Senior Service Center	
Shepard of the Desert Preschool		
Shepard of Desert Kindergarten		
Kachina Country Day School		
Hand n Hand of Scottsdale		

Approximately 40,719 people live within one-quarter mile of the proposed trolley route based on the 2010 Census data and American Community Survey data (2009-2013). Census and ACS data also indicate that 50 percent of the population in this area is over 50 years of age. 13 percent are over age 70 and 17 percent of the population are under age 18. In transit planning, this is an indication that approximately 30 percent of the residents are potentially transit dependent. This proposed route will provide mobility choice for a substantial elderly population.

Airpark Trolley

Figure 3 shows the proposed Airpark trolley route. The proposed trolley is approximately 12 miles long per direction. It links the east and west sides of Scottsdale airpark which is the second largest job concentration in Arizona. The 2013 MAG employer database indicates that approximately 20,582 employees are within one-quarter mile and 28,965 are within one-half mile of the proposed route. It provides service to major employers such as

Vanguard (2,120 employees), Go Daddy (761 employees), and International Cruise excursion (749); and also connects to CVS and Scottsdale Healthcare medical center within one-half mile.

The Airpark route provides connectivity to Phoenix, Tempe and Chandler via Route 72 and north phoenix via Route 154. The Airpark trolley will provide internal Airpark circulation and provide access to alternative parking/transportation by providing connectivity to the

Table B: Airpark Trolley

Schools	Parks	Major Employers
Hand n Hand of Scottsdale Casey Preschool	Thunderbird Park North Sight Park	Vanguard group(2120) Go Daddy (761) International cruise excursion (749)
Sunshine Montessori Academy		CVS and Scottsdale Health care (0.5mile)
Mission Montessori School Scottsdale Childcare and Learning Center	Libraries Mustang Library	Connectivity to Transit Routes Route 80 - Shea Blvd
The Scottsdale school La Petite Academy	Major Activity Centers Promenade shopping mall Retail at North sight /Rain tree	Route 81 - Hayden Road
Thunderbird Adventist Academy		Route 514 - Express
Safari Kids Scottsdale Preparatory Academy	Thunderbird Park & Ride Kierland Commons	Route 170 - Bell Road Route 72 - Scottsdale Road

Mustang Transit Center at 90th Street and Shea Blvd. and the Park and Ride at Thunderbird and Scottsdale Road.

Perimeter Trolley

Figure 4 shows the proposed Perimeter trolley route. This route is approximately seven miles long per direction and provides connectivity to businesses, retail, and entertainment along Greenway/Hayden Road and the Bahia Drive area near West World. **Table C** provides a list of schools, parks, and major employers in the vicinity of the route. Quicken Loan and Fender musical instruments are the largest employers within one-quarter mile of the proposed route. Also, Fairmont Princess Scottsdale is located within one-half mile of the proposed route.

Table C: Perimeter Trolley

Schools	Parks	Major Employers
Maui Play care Daycare	Scottsdale Sports Complex Ironwood Park Horizon Park (0.5miles)	Quick Loans(450) Fender Musical Instruments (300) Fairmont Scottsdale at 0.5 miles (915) Connectivity to Transit Routes Route 81 - Hayden Road Route 170 - Bell Road

Pinnacle Extension

Figure 5 shows the proposed Pinnacle Extension. Proposed route is to extend Route 72 from Thompson Peak to Pinnacle Peak which is approximately 3 miles long. **Table D** indicates that Discount Tire and Scottsdale Healthcare Thompson Peak are the major employers with approximately 400 employees within one-quarter mile of the route. This service does not provide connectivity to other Valley Metro or trolley routes.

Table D: Pinnacle Extension

Schools	Parks	Major Employers
Tutor Time School	None within 0.25 miles	Discount Tire (420) Thompson Peak Hospital (410) Rummel Construction (371)
<i>Schools(0.5mile)</i> Gray hawk Elementary	<i>Parks (0.5miles)</i> Gray hawk Park	Connectivity to Transit Routes
Eldorado Private school Pinnacle Peak Elementary School	Sonora Hills Park	None
	Libraries Appaloosa Library	

Estimated Annual Operation Cost

Table E shows the estimated annual operating cost and the number of vehicles needed for the four proposed routes. The Pinnacle Extension is assumed to be an extension of existing Route 72 and its cost was based on a per mile basis as opposed to service hours. Also, this early in the planning stages, it is unknown if Valley Metro will need extra buses to provide this service extension.

Table E indicates that annual operating cost for the Airpark Trolley is the highest cost followed by the Cactus Trolley. Both Cactus and Airpark routes are comparatively longer routes and provide more service hours than the other proposed routes.

Table E. Estimated Annual Operating Cost

Unserved Area	Weekday/Weekend	Hours of Operation	# Service Hours	# Vehicles	Estimated Annual Operating Cost
Cactus Trolley	Weekday	7am - 6pm	11	4	\$690,000
	Weekend				
Airpark Trolley	Weekday	7am - 9pm	14	4	\$1,030,000
	Weekend				
Perimeter Trolley	Weekday	7am - 6pm	11	1	\$135,000
	Weekend				
Pinnacle Extension	Weekday	6am - 11.30pm	N/A	Unknown	\$640,000
	Weekend				
Total Cost /Vehicles				9	\$2,495,000

Para-transit Costs

Scottsdale is obligated by federal-funding criteria to provide para-transit service to anyone residing within three-quarter-mile of each transit route. Transportation Department representatives are currently developing the potential cost impacts for providing this service in each of the four areas.

Prioritizing Implementing of Future Service Improvements

Transit service is most productive when it serves areas with dense housing, high employment, educational facilities, activity centers, and connectivity to other transit routes. The 2010 Valley Metro On-Board survey indicates that more than three-fourths of those who walked to transit indicated they walk as far as one-quarter mile. The potential implementation order of the proposed service improvements can be determined by available resources to fund each proposed route and rank their attributes as shown in **Table F** below. These rankings indicate, the Airpark Trolley should be implemented first followed by the Cactus Trolley.

Source of information

Employees - 2013 MAG employer database within quarter mile

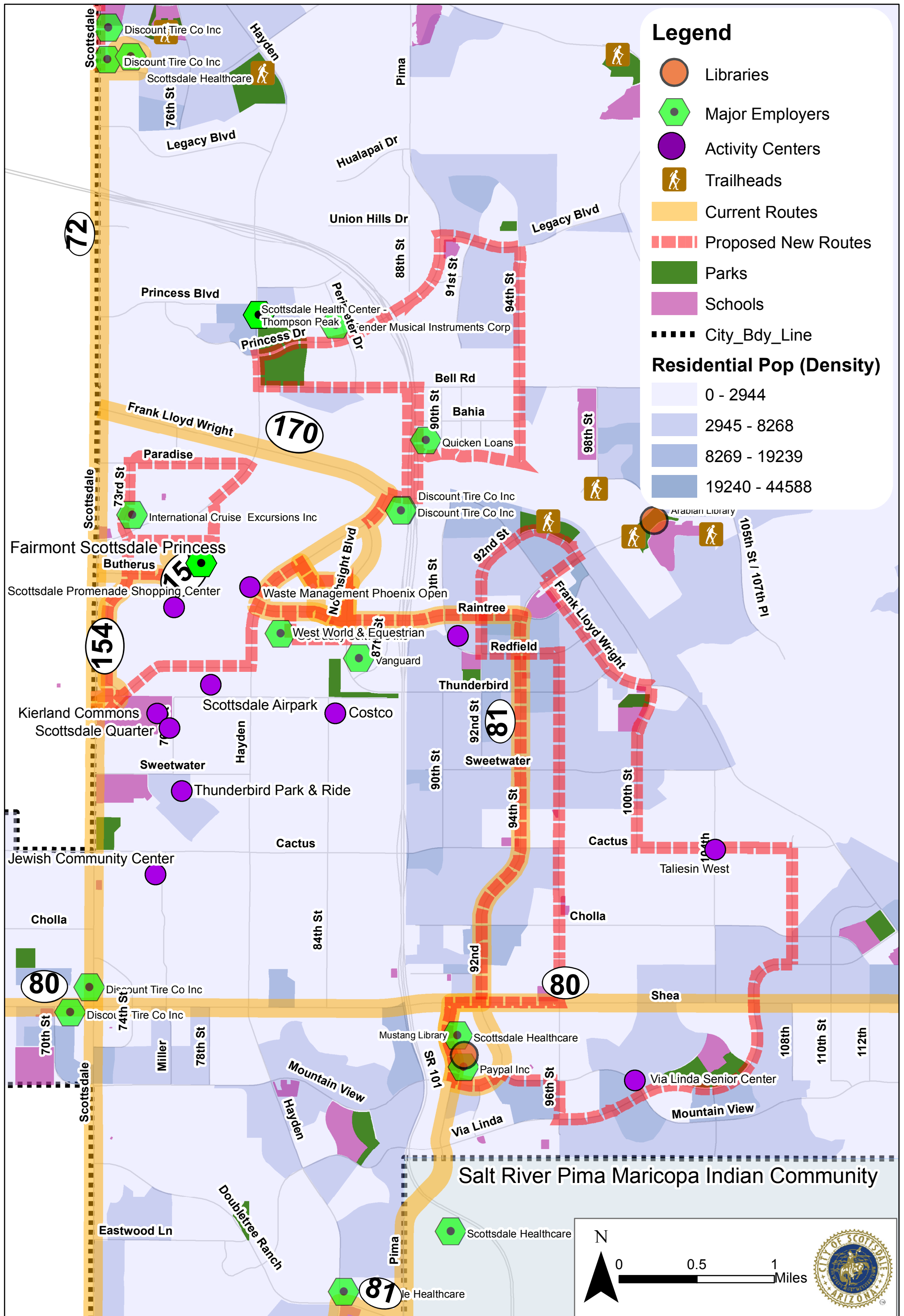
Housing units - 2010 Census data and 2009-2013 ACS data within quarter mile.

Table F: Prioritization of Service Improvements

Area Proposed for Improvement	# of Employees	Rank	# Housing Units	Rank	# of Adjacent Transit Routes	Rank	Total Score	Total Rank
Cactus Trolley	12,676	2	23,655	1	3	2	5	2
Airpark Trolley	28,965	1	19,263	2	4	1	4	1
Pinnacle Extension	7,830	3	7,198	4	1	4	11	4
Perimeter Trolley	3,014	4	10,604	3	2	3	10	3

Attachments: Figure 1
Figure 2
Figure 3
Figure 4
Figure 5

Figure 1: Overview



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Figure 2: Cactus Trolley

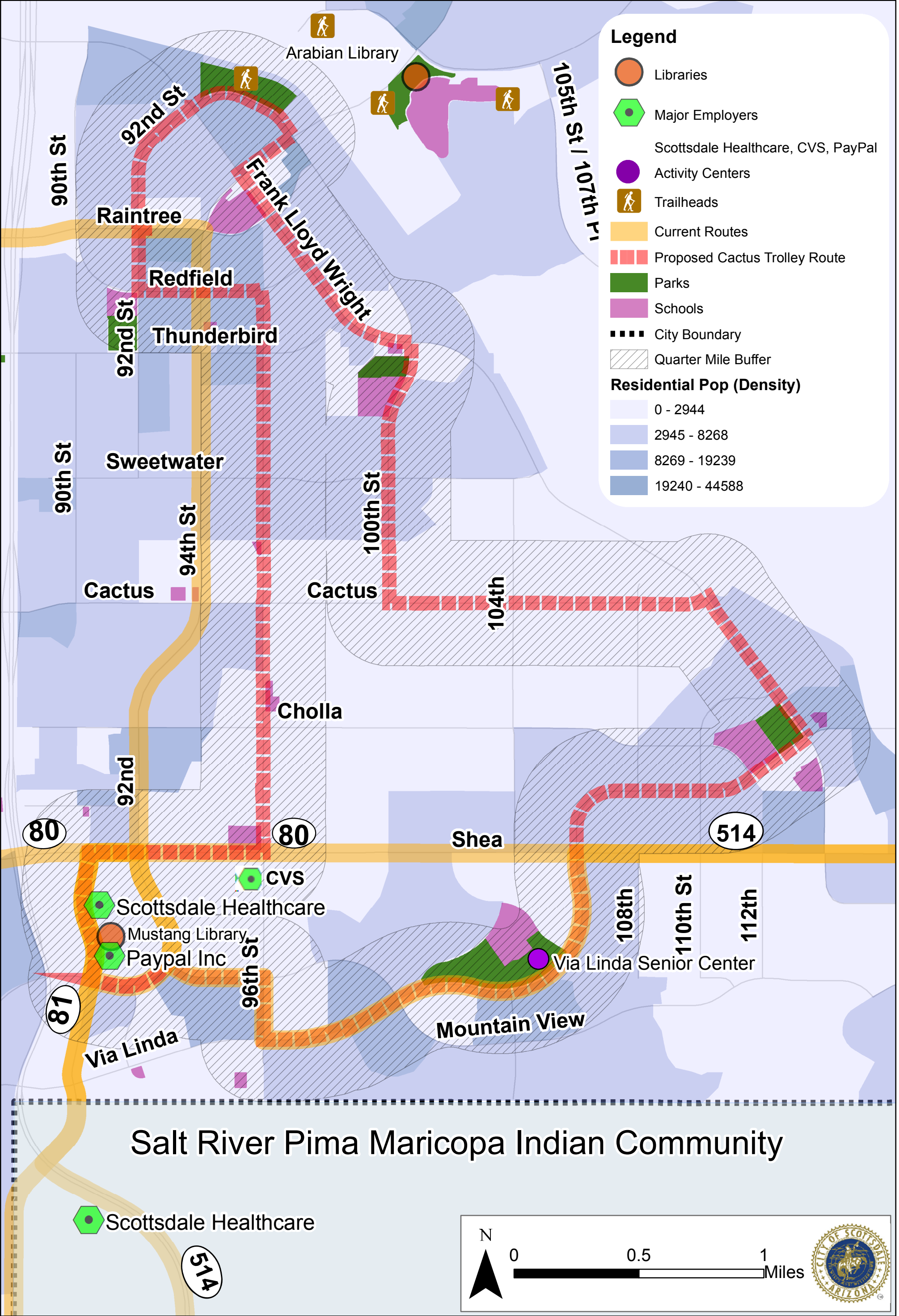
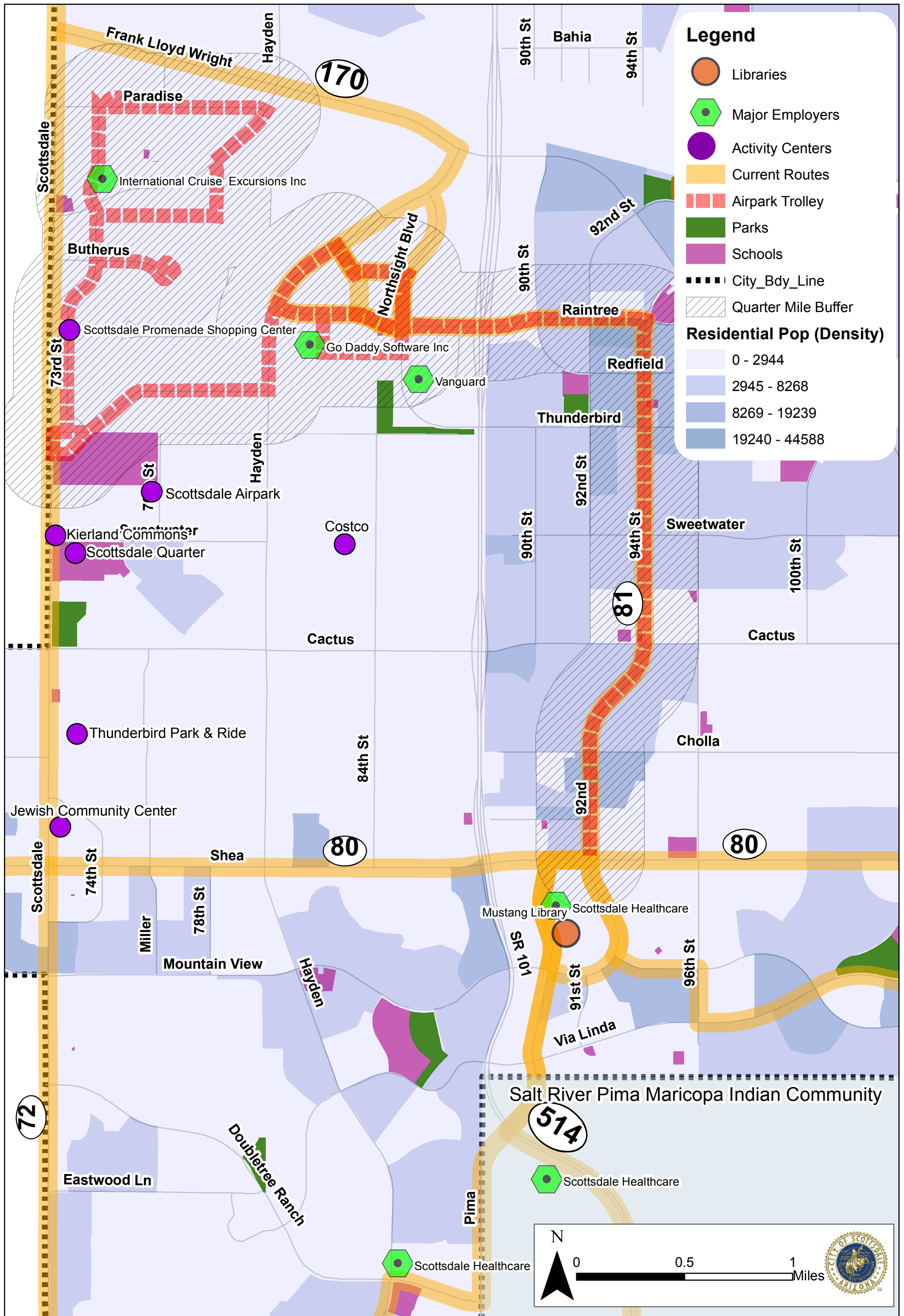


Figure 3: Airpark Trolley



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Legend

- Major Employers
- Activity Centers
- Trailheads
- Current Routes
- Perimeter Trolley
- Parks
- Schools
- City_Bdy_Line
- Quarter Mile Buffer

Residential Pop (Density)

- 0 - 2944
- 2945 - 8268
- 8269 - 19239
- 19240 - 44588

Map Labels:

- Hualapai Dr
- Union Hills Dr
- Legacy Blvd
- 88th St
- 91st St
- 94th St
- 98th St
- 90th St
- 92nd St
- 87th St
- Pima
- Princess Dr
- Trailside View
- Fender Musical Instruments Corp
- Scottsdale Sports Complex
- Fairmont Scottsdale Princess
- Perimeter Dr
- Bell Rd
- Bahia
- Quicken Loans
- West World & Equestrian
- 100th St
- Raintree
- Costco
- Hayden
- Northsight Blvd
- 170
- 81

Scale: 0, 0.25, 0.5 Miles

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Figure 5: Pinnacle Extension

